I 3

```
   CCCCCCCCCCCC  LLL                 IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCCC  LLL                 IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
   CCCCCCCCCCCC  LLL                 IIIIIIIII     UUU         UUU  TTTTTTTTTTTTTTT  LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
CCC              LLL                    III        UUU         UUU        TTT        LLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL     IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL     IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
   CCCCCCCCCCCC  LLLLLLLLLLLLLLL     IIIIIIIII     UUUUUUUUUUUUUUU        TTT        LLLLLLLLLLLLLLL
```

J 13

FILEID**SETPODISP

```
  SSSSSSSS  EEEEEEEEEE  TTTTTTTTTT  PPPPPPPP      000000    DDDDDDDD      IIIIII      SSSSSSSS  PPPPPPPP
  SSSSSSSS  EEEEEEEEEE  TTTTTTTTTT  PPPPPPPP      000000    DDDDDDDD      IIIIII      SSSSSSSS  PPPPPPPP
SS          EE              TT      PP      PP  00      00  DD      DD      II      SS          PP      PP
SS          EE              TT      PP      PP  00      00  DD      DD      II      SS          PP      PP
SS          EE              TT      PP      PP  00    0000  DD      DD      II      SS          PP      PP
SS          EE              TT      PP      PP  00    0000  DD      DD      II      SS          PP      PP
  SSSSSS    EEEEEEEE        TT      PPPPPPPP    00  00  00  DD      DD      II        SSSSSS    PPPPPPPP
  SSSSSS    EEEEEEEE        TT      PPPPPPPP    00  00  00  DD      DD      II        SSSSSS    PPPPPPPP
        SS  EE              TT      PP          0000    00  DD      DD      II              SS  PP
        SS  EE              TT      PP          0000    00  DD      DD      II              SS  PP
        SS  EE              TT      PP          00      00  DD      DD      II              SS  PP              ....
        SS  EE              TT      PP          00      00  DD      DD      II              SS  PP              ....
SSSSSSSS    EEEEEEEEEE      TT      PP            000000    DDDDDDDD      IIIIII    SSSSSSSS    PP              ....
SSSSSSSS    EEEEEEEEEE      TT      PP            000000    DDDDDDDD      IIIIII    SSSSSSSS    PP              ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
0 MODULE setp0$disp ( IDENT = 'V04-000', MAIN = setp0$disp) =
1 BEGIN
1
1 !
1 !****************************************************************************
1 !*                                                                          *
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1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1
1 !++
1 ! FACILITY:  SET Command (SETP0.EXE)
1 !
1 ! ABSTRACT:
1 !
1 !      This is the main option dispatcher for all options
1 !      handled by the SETP0 image which completely resides
1 !      is the P0 region, stack and all, in order to map
1 !      certain sections into P1 space.
1 !
1 ! ENVIRONMENT:
1 !
1 !      VAX/VMS operating system. unprivileged user mode,
1 !
1 ! AUTHOR:  Tim Halvorsen, Dec 1979
1 !
1 ! Modified by:
1 !
1 !      V03-003 AEW0001          Anne E. Warner          20-Jul-1984
1 !              Turn on the capability to report messages which was
1 !              originally supressed.
1 !
1 !      V03-002 BLS0291          Benn Schreiber          24-MAR-1984
1 !              Move SET PASSWORD here from SET.
1 !
1 !      V03-001 GAS0112          Gerry Smith             29-Mar-1983
1 !              Use new CLI interface.
1 !
1 !--
1
```

```
;     58          0058   1 !
;     59          0059   1 ! Include files
;     60          0060   1 !
;     61          0061   1
;     62          0062   1 LIBRARY 'SYS$LIBRARY:STARLET.L32';       ! VAX/VMS common definitions
;     63          0063   1
;   65          0064  1 !
;   66          0065  1 ! Table of contents
;   67          0066  1 !
;   68          0067  1
;   69          0068  1 FORWARD ROUTINE
;   70          0069  1     setp0$disp;                         ! Main option dispatcher
;   71          0070  1
;   72          0071  1 !
;   73          0072  1 ! External routines
;   74          0073  1 !
;   75          0074  1
;   76          0075  1 EXTERNAL ROUTINE
;   77          0076  1     cli$get_value;                      ! Get value from CLI
;   78          0077  1
;   79          0078  1 !
;   80          0079  1 ! Global definitions
;   81          0080  1 !
;   82          0081  1
;   83          0082  1 GLOBAL
;   84          0083  1     setp0$l_status:     INITIAL(ss$_normal);    ! Status returned from option
;   85          0084  1
;   86          0085  1 !
;   87          0086  1 ! Macro to set up two associated tables.  The first table is a list of
;   88          0087  1 ! descriptor addresses.  These descriptors contain the option names.
;   89          0088  1 ! The second table is a corresponding list of addresses of option routines.
;   90          0089  1 !
;   91          0090  1 ! If a new option is added to SETPO, all that is required in this
;   92          0091  1 ! module is to add one line of code, the option name, e.g. WORKING_SET.
;   93          0092  1 ! Then, the name of the global routine that is dispatched to from this
;   94          0093  1 ! routine will be named SET$WORKING_SET.
;   95          0094  1 !
;   96          0095  1 MACRO
;   97          0096  1
;   98          0097  1     option_name [option] = %EXACTSTRING(4, 0, option)%,
;   99          0098  1
;  100          0099  1     option_address [option] = %NAME(%STRING('set$',%STRING(option)))%,
;  101          0100  1
;  102          0101  1     option_declare [option] = %NAME(%STRING('set$',%STRING(option))) : NOVALUE%,
;  103          0102  1
;  104        M 0103  1     make_table (name) =
;  105        M 0104  1         LITERAL %NAME(%STRING(name,'_table_length')) = %LENGTH - 1;
;  106        M 0105  1         EXTERNAL ROUTINE option_declare(%REMAINING);
;  107        M 0106  1         OWN
;  108        M 0107  1             %NAME(%STRING(name,'_option')) : VECTOR[%LENGTH - 1]
;  109        M 0108  1             INITIAL (option_name(%REMAINING)),
;  110        M 0109  1
;  111        M 0110  1             %NAME(%STRING(name,'_routine')) : VECTOR[%LENGTH - 1]
;  112          0111  1             INITIAL (option_address(%REMAINING));%;
;  113          0112  1
;  114          0113  1
;  115          0114  1 !
;  116          0115  1 ! Set up a table of all options, and another table pointing to the address
;  117          0116  1 ! of the routine for each option.
;  118          0117  1 !
;  119          0118  1
;  120        P 0119  1 make_table (set,
;  121        P 0120  1                    message,
;  122          0121  1                   password);
;   124          0122  1 ROUTINE handler (sigargs, mechargs) =
;   125          0123  2 BEGIN
;   126          0124  2
;   127          0125  2 !---
;   128          0126  2 !
;   129          0127  2 ! This routine is a condition handler established by the main
;   130          0128  2 ! routine.  It saves the most severe condition for the exit status.
;   131          0129  2 !
;   132          0130  2 !---
;   133          0131  2
;   134          0132  2 MAP
;   135          0133  2     sigargs : REF $BBLOCK,
;   136          0134  2     mechargs : REF $BBLOCK;
;   137          0135  2 BIND
;   138          0136  2     signame = sigargs[chf$l_sig_name] : $BBLOCK;        ! Name of signal
;   139          0137  2
;   140          0138  2
;   141          0139  2 IF .setp0$l_status EQL 1                          ! If no errors yet, use
;   142          0140  2 THEN setp0$l_status = .signame;                   ! this one.
;   143          0141  2
;   144          0142  2 IF NOT .signame                                   ! If an error signal
;   145          0143  2 AND .signame[sts$v_severity]                      ! and severity is worse
;   146          0144  2 GTRU .$BBLOCK[setp0$l_status, sts$v_severity]     ! than current saved severity
;   147          0145  2 THEN setp0$l_status = .signame;                   ! then save it for exit
;   148          0146  2
;   149          0147  2 RETURN ss$_resignal;                              ! Resignal to get message
;   150          0148  1 END;


                                                                  .TITLE  SETPO$DISP
                                                                  .IDENT  \V04-000\

                                                                  .PSECT  $OWN$,NOEXE,2

                           53  53  45  4D  00000 SET_OPTION:
                                                                  .ASCII  \MESS\                                 ;
                           53  53  41  50  00004                  .ASCII  \PASS\                                 ;
                    00000000G 00000000G  00008 SET_ROUTINE:
                                                                  .ADDRESS SET$MESSAGE, SET$PASSWORD             ;

                                                                  .PSECT  $GLOBAL$,NOEXE,2

                                  00000001  00000 SETPO$L_STATUS::
                                                                  .LONG   1                                      ;

                                                                  .EXTRN  CLI$GET_VALUE, SET$MESSAGE
                                                                  .EXTRN  SET$PASSWORD

                                                                  .PSECT  $CODE$,NOWRT,2

                                       0004  00000 HANDLER:.WORD  Save R2                                        ; 0122
               52       0000'    CF   9E  00002          MOVAB    SETPO$L_STATUS, R2                             ;
  50     04    AC                04   C1  00007          ADDL3    #4, SIGARGS, R0                                ; 0136
               01                62   D1  0000C          CMPL     SETPO$L_STATUS, #1                             ; 0139
                                 03   12  0000F          BNEQ     1$                                             ;
               62                60   D0  00011          MOVL     (R0), SETPO$L_STATUS                           ; 0140
               0F                60   E8  00014 1$:      BLBS     (R0), 2$                                       ; 0142
```

```
        51          62          03             00  EF 00017          EXTZV    #0, #3, SETPO$L_STATUS, R1             ; 0144
        51          60          03             00  ED 0001C          CMPZV    #0, #3, (R0), R1                       ;
                                               03  1B 00021          BLEQU    2$                                     ;
                                62             60  D0 00023          MOVL     (R0), SETPO$L_STATUS                   ; 0145
                                50      0918   8F  3C 00026 2$:      MOVZWL   #2328, R0                              ; 0147
                                                   04 0002B          RET                                             ; 0148

; Routine Size:  44 bytes,    Routine Base:  $CODE$ + 0000
```

```
1 ROUTINE setp0$disp =                          ! Main dispatching routine
1
1 !++
1 ! Functional description
1 !
1 !       This routine decodes the set option and dispatches to
1 !       the option specific routine.
1 !
1 ! Calling sequence
1 !
1 !       Called from the Command Language Interpreter
1 !
1 ! Input parameters
1 !
1 !       None
1 !
1 ! Output parameters
1 !
1 !       None
1 !
1 ! Routine value
1 !
1 !       Error returned from option routine or SS$_NORMAL.
1 !
1 !----
1
2 BEGIN
2
2 LOCAL
2     desc : BLOCK[dsc$c_s_bln,BYTE],     ! Option descriptor
2     status;                             ! status code
2
2 ENABLE handler;                                       ! Enable the condition handler
2
2 !
2 ! Get option, and dispatch to it
2 !
2 $init_dyndesc(desc);                    ! Make descriptor dynamic
3 IF NOT (status = cli$get_value(%ASCID 'OPTION', desc))
2 THEN RETURN .status;
2
2 desc[dsc$w_length] = MINU (.desc[dsc$w_length], 4);
2
2 INCR index FROM 0 TO set_table_length - 1 DO
3     BEGIN
3     IF CH$EQL(.desc[dsc$w_length], .desc[dsc$a_pointer],
3               .desc[dsc$w_length], set_option[.index])
3     THEN
4         BEGIN
4         (.set_routine[.index])();
4         EXITLOOP
3         END;
2     END;
2
2 RETURN (.setp0$l_status );              ! Exit with message
2
1 END;
```

```
                                                                 .PSECT  $PLIT$,NOWRT,NOEXE,2

                   00  00  4E  4F  49  54  50  4F 00000 P.AAB:   .ASCII   \OPTION\<0><0>                              ;
                                         010E0006 00008 P.AAA:   .LONG    17694726                                    ;
                                        00000000' 0000C          .ADDRESS P.AAB                                       ;


                                                                 .PSECT  $CODE$,NOWRT,2

                                             001C 00000 SETPO$DISP:
                                                                 .WORD    Save R2,R3,R4                               ; 0149
                             5E            04  C2 00002          SUBL2    #4, SP                                      ;
                             6D      004A  CF  DE 00005          MOVAL    6$, (FP)                                    ; 0175
                                 020E0000  8F  DD 0000A          PUSHL    #34471936                                   ; 0186
                                       04  AE  D4 00010          CLRL     DESC+4                                      ;
                                           5E  DD 00013          PUSHL    SP                                          ; 0187
                                    0000'  CF  9F 00015          PUSHAB   P.AAA                                       ;
                      0000G  CF            02  FB 00019          CALLS    #2, CLI$GET_VALUE                           ;
                             31            50  E9 0001E          BLBC     STATUS, 5$                                  ;
                             50            6E  3C 00021          MOVZWL   DESC, RO                                    ; 0190
                             04            50  B1 00024          CMPW     RO, #4                                      ;
                                           03  1B 00027          BLEQU    1$                                          ;
                             50            04  D0 00029          MOVL     #4, RO                                      ;
                             6E            50  B0 0002C 1$:      MOVW     RO, DESC                                    ;
                                           54  D4 0002F          CLRL     INDEX                                       ; 0194
                                    0000'CF44  DF 00031 2$:      PUSHAL   SET_OPTION[INDEX]                           ; 0195
                 9E      08  BE        04  AE  29 00036          CMPC3    DESC, @DESC+4, @(SP)+                       ;
                                           0B  12 0003C          BNEQ     3$                                          ;
                             50     0000'CF44  D0 0003E          MOVL     SET_ROUTINE[INDEX], RO                      ; 0198
                             60            00  FB 00044          CALLS    #0, (RO)                                    ;
                                           04  11 00047          BRB      4$                                          ; 0197
                 E4          54            01  F3 00049 3$:      AOBLEQ   #1, INDEX, 2$                               ; 0192
                             50     0000'  CF  D0 0004D 4$:      MOVL     SETPO$L_STATUS, RO                          ; 0203
                                               04 00052 5$:      RET                                                  ; 0205
                                             0000 00053 6$:      .WORD    Save nothing                                ; 0175
                                           7E  D4 00055          CLRL     -(SP)                                       ;
                                           5E  DD 00057          PUSHL    SP                                          ;
                             7E        04  AC  7D 00059          MOVQ     4(AP), -(SP)                                ;
                       FF72  CF            03  FB 0005D          CALLS    #3, HANDLER                                 ;
                                               04 00062          RET                                                  ;

; Routine Size:  99 bytes,    Routine Base:  $CODE$ + 002C
;  210          0206  1 END
;  211          0207  0 ELUDOM



;                                       PSECT SUMMARY
;
;       Name                         Bytes                           Attributes
;
;    $GLOBAL$                            4  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;    $OWN$                              16  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;    $CODE$                            143  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;    $PLIT$                             16  NOVEC,NOWRT,  RD ,NOEXE,NOSHR   LCL,  REL,  CON,NOPIC,ALIGN(2)



;                              Library Statistics
;
;                                               -------- Symbols --------       Pages       Processing
;       File                                    Total     Loaded  Percent       Mapped      Time
;
;    _$255$DUA28:[SYSLIB]STARLET.L32;1          9776         13        0         581          00:01.0



;                                       COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:SETPODISP/OBJ=OBJ$:SETPODISP MSRC$:SETPODISP/UPDATE=(ENH$:SETPODISP)

; Size:           143 code + 36 data bytes
; Run Time:          00:04.9
; Elapsed Time:      00:20.8
; Lines/CPU Min:       2529
; Lexemes/CPU-Min: 14969
; Memory Used:  54 pages
; Compilation Complete
```

0053 AH-BT13A-SE
VAX/VMS V4.0

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